THE ART AMATEUR.

way to preserve it is to have it well varnished and hang it up. All the dust that settles on it when the varnish is dry can be easily washed away.

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It is not generally known that Jean Paul Marat, the monumental monster of the French Revolution, contributed to the science of art a couple of treatises on light and optics valuable enough to secure the approval of the discriminating and critical Goethe. Written by any other man they would probably have been popular and widely read.

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Gilt frames too brilliant and glaring may be toned down by glazing with bitumen, mixed with Japan or gold size and a little turpentine, applied with a bristle brush, the surplus color being wiped off with a soft rag. Many artists tone their frames into harmony with their pictures before they send them to the exhibitions.

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A curious theory was that of Johann Hoffman, who first set up the comparison between color and sound. Light he compared to noise, darkness to silence, the primary colors to whole and the mixed to half notes, in music. The setting of the palette he found similar to the tuning of an instrument; and he went so far as to compare certain colors with certain instruments. Thus, indigo reminded him of a violoncello, ultramarine of a violin or viola, yellow of a clarionet, vermilion of a trumpet, purple of a hunting-horn, and so on. A lively watercolor he found the equivalent of a piano concert, and a solid picture in oil of a symphony.　ARTIST.

CHARCOAL AND CRAYON DRAWING.*

Charcoal and crayon have of late years banished almost completely from our schools and studios the use of the black lead-pencil, which, less than a generation ago, was the first drawing implement put into the hand of the pupil. The revolution is due doubtless to the influence of American artists who, like Mr. Frank Fowler, have studied on the European Continent. In England the lead-pencil is still much used, except in such institutions as the Slade School at University College, London, presided over by foreigners. There is much to be said in favor of the good old-fashioned graphite, with its rich, soft and silvery tones and their wonderful possibilities for delicate effects, impossible with the more robust charcoal and crayon. But the latter are indispensable for drawings on a large scale, as from the cast and life-size portraiture, which require more breadth of treatment; and in giving us the admirably practical and lucid textbook before us Messrs. Cassell & Co. have really met a popular demand.

Two different methods are treated of—the one, in which the charcoal point is used alone, the shading being put in with lines which are not blended, no stump or rubbing together of any kind being allowed; and the other, in which the charcoal is blended with a stump, no lines being visible in the modelling. The latter is the method generally employed in art schools, and to it Mr. Fowler devotes principal attention. He allows a limited use of the crayon point even in charcoal drawing. In crayon portraiture the charcoal, of course, may be freely used; for if lightly put on it is easily effaced by dusting.

Supposing the subject to be a head, the following directions—we present them abridged—are given for procedure in charcoal drawing:

First make a small mark or dot on the paper with your charcoal, to show where the top of the head will come. A corresponding dot will indicate the bottom of the face or chin, while a mark on each side will show the width of the head. Before beginning to draw a line, these marks will suggest whether the head be properly placed on the sheet. See that there is not too much space on either side, and that the head is not too high or too low. The position being decided, the outlines are lightly sketched in with long sweeping lines, following the general direction of the head without any attention at first to details of any kind. Let these lines next determine the oval described by the face, sketching at the same time the lines of the throat, and ascertaining the action of the body in relation to the head by one or more long, sweeping lines across the bust from shoulder to shoulder. Next draw a line with the charcoal point across the oval of the face where the hair meets the forehead, one through the middle of the eyes, one at the base of the nose, through the centre of the mouth and the lowest point of the chin.

These lines determine the proportions of the face, and are drawn very lightly with the charcoal, sharpened to a fine point, as they are erased when the features are drawn in. Next proceed to place the features on these lines, blocking them in only in their general forms at first with very little detail, and draw these forms as squarely as possible, seeking for angles and avoiding curves. Having ascertained that the features are in the right place, go back to the outline and bring that into shape, though without trying to finish it carefully as yet.

The next step is to block in the shadows in their general forms, dividing the whole head into two distinct masses of light and shade. To do this, make a faint outline of the exact form of the shadows where they meet the light; now fill in with charcoal all the mass of shadow within the outline, making one flat, even tone of dark without variation of shade. To do this draw the charcoal in straight parallel lines slightly oblique, almost touching each other, until the whole shadow is covered. No special care need be taken in putting in these lines, as the main object is to get the paper sufficiently covered with the charcoal. The largest paper stump is now used, to unite these charcoal lines into one flat tone of dark. The stump is held in the fingers, so that about an inch of the point lies on the paper, not merely the tip end. With this the charcoal is rubbed in until no lines appear, only one simple even tone of dark filling the outline of the shadow.

Put in the eyes, nose, mouth, etc., and in the same way, drawing the form of the general shadow first without any detail, and putting in the flat tone with the charcoal and stump. When the principal shadows are thus laid in, look at the head from a distance and see if the proportions are correct. Any mistake will be easily seen in this stage, and should be corrected at once before proceeding farther.

In laying in a mass of shadow, if too much charcoal gets on the paper, so as to become inconvenient, wipe it off lightly and evenly with a soft cotton rag, and if then the tone is too light, work on it again with charcoal, as before, using the stump in the same way until it becomes the right tone.

In working heads, life studies, etc., in charcoal it is the practice in all the large art schools to finish them with black crayon. The crayon is not touched, however, until the shadows are all put in and the proportions found to be correct. The whole effect being blocked in in the way already described, the crayon is taken up and the two materials used together at first, as required, in the following manner:

The outline, which has been sketched in with charcoal, is now very carefully drawn with a finely pointed Conté crayon No. 2. First dust off the charcoal a little with a rag until the outline is quite light, though easily seen, and do not make the crayon outline too dark and thick. Next proceed to block in the hair with charcoal. Do this at first in the simple masses of light and shade, rubbing in the charcoal in close lines at first, so as to well cover the paper, and then using the stump to make one flat, even tone. If the hair is dark, cover the light mass with a general tone of light gray, using the charcoal very lightly and rubbing it flat with the stump as before. If the hair is light, put in a fainter tone for the dark mass and a very delicate tone over the light mass. Do not attempt to see any reflected lights or small details as yet.

Having the head now well started, we proceed to carry it on by putting in the half tints which connect the masses of light and shadow all over the face. Do this with a clean, medium-sized paper stump by dragging the charcoal from the shadow over the light. Do not put any new charcoal on for the half tints, as it is very important that they be kept light at first. Keep a clean stump always at hand for delicate half tints, and never use an old one.

The face now begins to model and look round, and is farther carried on by putting in the dark accents of shadow and taking out reflected lights with bread. The features are brought into shape, using the sharp pointed charcoal and a small stump. At this stage the crayon is taken up permanently and the charcoal laid aside. The Conté crayon No. 2 sharpened to a fine point is rubbed all over the mass of shadow already laid in with charcoal and is then softened with the stump in the manner already described, the charcoal and crayon together producing a beautiful quality of tone.

Sauce crayon is only to be employed for large spaces, and is useful in saving time, as it takes longer to cover the surface with lines made by the crayon point. Still many prefer the latter. The crayon point is always used in finishing up the drawing, which is carried on by degrees. The dark accents are put in the eyes, nose, mouth and ears, and the small stump is used to soften the marks of the crayon, but should not be rubbed too much.

If the head be rather dark in its general effect, a very delicate gray tint should be put all over the light mass of the face. This is done with a clean stump which has been used for half tints, and the tone is put on in the same manner, the crayon point not being used here.

The high lights are taken out with the bread rolled to a point, and should be made sharp and distinct.

In drawing hair, do not attempt to put in too much detail. The deepest shadows and the highest lights should always be kept simple. The most detail is generally seen in the half tint, but should be very carefully studied only in the most prominent parts, the rest being left in a suggestive way.

In crayon portraiture Mr. Fowler recommends the use of the stump, for, as he says, "the old-fashioned ways of stippling and hatching are seldom resorted to, and are not considered artistic." He is inclined to find Whatman's crayon paper the most satisfactory, and we agree with him. The beginner who is not proficient in drawing may follow the advice given of making a first sketch upon an ordinary sheet of charcoal paper and transferring it to the stretcher; then with a sharp charcoal point fol-

low the outline, block in the features, and mass the shadows in the face and hair, and only when the general likeness is assured begin to use the crayon. We quote:

Draw in the head exactly as you see it, emphasizing the salient points, no matter how ugly it may appear. Do not attempt to improve; modify until the drawing and general likeness are secured. The expression comes last of all, and with it the beauty. If you attempt to make the face pretty at first you will weaken the drawing and lose the character.

After the head is put in with the crayon and modelled with the stump the finishing is carried on with the crayon point, the small stump, and the pointed rubber stump, which is found more useful than bread at the last.

The animated expression is put in the eyes by dark touches in the pupil and under the lids, while sharp lights are accented in the iris and on the eyeball. The form of the under-lid must be carefully studied. The nose, also, has much to do with the expression, especially the shape of the nostrils, and the direction of the lines at the side of the nose running down to the mouth. Observe whether the nostrils droop downward at the outward edge—this gives a serious expression; if, on the contrary, the line is elevated, it tends to give a bright and animated appearance to the face. The mouth, of course, is of great importance, and influences the expression more than any other feature; when smiling, the corners are turned upward, and the lines or dimples are curved in an outward direction. In a sad face the corners of the mouth drop downward and the lines grow straight.

In drawing the hair, no matter how elaborate its arrangement, it must be blocked in at first in simple flat masses of light and shade, without any attempt at detail. Try, however, to give the general character of the hair in putting in the form of the shadows where they meet the light. In smooth, black hair, the effect will be large masses of black with sharp, clearly-defined high lights. Light curly hair will have much lighter tone in the shadow and much less brilliant lights. After the hair is thus laid in with charcoal and the stump the crayon is taken up. The half tints are studied and the deep accents of dark put in the shadows, always following the outline of the form of each shadow very carefully. Avoid putting in a number of lines to represent hair, as this destroys the effect and means nothing. All details are expressed by carefully rendered light and shade. In finishing the high lights are taken out with bread rolled to a point, or, if more convenient, the india-rubber stump is used. Soften the hair where it touches the face, never leaving a hard, dark line.

Never make the background exactly the same value as the head. If the hair is light and the general effect of the face fair and delicate the background should be darker than the head, though not too dark. Everything must be harmonious, and a spotty appearance is to be avoided. For instance, a very light effect of hair and face with a moderately dark dress and a jetty-black background is very bad. Also, a head with black hair, white dress and very light background. All violent contrasts should be avoided.

Put the background in at first with charcoal only, using parallel lines in one direction, then crossing them diagonally. After this take the large stump and rub these lines into one tone, yet leaving a slight suggestion of the lines to show through. Put in this tone only around the shoulders and the lower part of the head, leaving the upper part of the paper bare, or nearly so. In this way try the effect, working slowly, and adding more charcoal as the tone needs to be darker. When you have decided that the background has the right effect in relation to the head use the crayon point in the same way as the charcoal, putting in crossed lines, and rubbing them together again with the stump until a transparent effect is achieved, which will give atmosphere and relieve the head.

Remember that hardly any appearance of lines must be seen. When all is done they must be so softened with stump and rag as to present almost the appearance, at a little distance, of an even tone.

Never attempt to make landscape backgrounds or effects of drapery and still-life behind a simple portrait head. Everything should be kept subordinate to the face. Never use white chalk or crayon with the black in such portraits; take all lights out with bread, or leave the paper clean.

All drapery in a crayon portrait must be treated as simply as possible, being regarded only as secondary in importance to the head, which is, of course, the main object of interest. All elaborate trimmings or pronounced fashions should be avoided. Different kinds of material are interpreted by carefully studying the different forms of the lights and shadows in each. For instance, black satin is rendered by large masses of black, as black as crayon can be made with sharp, narrow high lights, so light as to be almost white. In black silk the masses of dark are lighter in their general tone, and the lights less sharp and brilliant. The different colors are represented by lighter or darker tones, as the case may be. In black velvet the masses of dark are softer than in satin, and not so jetty black, while the lights are less brilliant and more diffused in effect, leaving more half tints than are seen either in silk or satin. In black cloths the lights are quite low in tone and the darks are not very black; no sharp high lights are seen at all, both light and shade taking large and simple forms. White stuffs, such as lace, muslin, etc. are also kept simple in effect, and are laid in with a very delicate tone all over the mass of light, and the high lights are taken out with bread.

When there is a white cap upon the head or lace of any kind, do not make it too prominent, but carefully study its value in relation to the face.

Some useful hints are given about landscape drawing, and an appendix furnishes explanations of eight studies by the author, reproduced by the heliotype process, and conveniently put up in an oblong pasteboard box.